

DUBININ, Nikolay Petrovich, kand.tekhn.nauk; ZHEVTUNOV, Petr Prokhorovich, kand.tekhn.nauk; STOROZHEV, Mikhail Vasil'yevich, kand.tekhn.nauk; POPOV, Yevgeniy Aleksandrovich, kand.tekhn.nauk; NAZAROV, Sergey Tikhonovich, kand.tekhn.nauk; GLADILIN, Anatoliy Nikolayevich, kand.tekhn.nauk; KRASAVIN, Vasil'y Stepanovich, kand.tekhn.nauk; PANCHENKO, Konstantin Petrovich, kand.tekhn.nauk; POPOV, Viktor Aleksandrovich, kand.tekhn.nauk; RASTORGUYEV, Ivan Sergeyevich, kand.tekhn.nauk [deceased]; SHEMSHURINA, Ye.A., red.izd-va; UVAROVA, A.F., tekhn.red.; MODEL', B.I., tekhn.red.

[Technology of metals] Tekhnologiya metallov. Pod red. N.P. Dubinina. Izd.3. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1959. 564 p. (MIRA 13:7)

1. Prepodavateli Moskovskogo vysshago tekhnicheskogo uchilishcha imeni N.Ye.Baumana (for all except Shemshurina, Uvarova, Model').
(Metals) (Metalwork)

ALEKIN, L.Ye., dotsent, kand.tekhn.nauk; GLADILIN, A.N., dotsent, kand.
tekhn.nauk; KRASAVIN, V.S., starshiy prepodavatel'; LIFERENKO,
N.N., dotsent, kand.tekhn.nauk; MAKAROVA, V.I., dotsent, kand.
tekhn.nauk; KHRKNOV, A.D., starshiy prepodavatel'. Prinimali
uchastiye: LUNEV, F.A. [deceased]; RASTORGUYEV, I.S. [deceased];
BILINSKIY, M.Ya., red.; DORODNOVA, L.A., tekhn.red.

[General technology of metals] Obshchaia tekhnologiya metallov.
Izd.3., perer. i dop. Moskva, Vses.uchebno-pedagog.izd-vo Prof-
tekhizdat, 1960. 381 p. (MIRA 13:12)
(Metals) (Metalwork)

KRASAVIN, Vil' Viktorovich, aspirant

Mechanical rectifier with valve-rheostat commutation. Izv.vys.
ucheb.zav.; elektromekh. 5 no.3:321-328 '62. (MIRA 15:4)

1. Kafedra avtomatiki Khar'kovskogo gornogo instituta.
(Electric current rectifiers)

IVANCHENKO, Ye.Ya., prof.; KRASAVIN, V.V., inzh.

Designs of chokes of the simplest construction with a minimum
cost in materials. Izv. vys. ucheb. zav.; gor. zhur. 5 no.10:
137-141 '62. (MIRA 15:11)

1. Khar'kovskiy gornyy institut. Rekomendovana kafedroy avtomatizatsii
proizvodstvennykh protsessov.
(Electric transformers--Equipment and supplies)

L 3891-66 EWT(1)

ACCESSION NR: AP5017494

UR/0368/65/002/006/0546/0549

535.33:535.89

AUTHOR: ^{44.55}Krasavin, V. V.; ^{44.55}Kulikov, S. A.; ^{44.55}Mishchenko, Ye. D.; ⁴⁶Startsev, G. P. ^B

TITLE: Measurement of the density of the radiation spectrum of a pulsed source in the far ultraviolet region ^{44.55, 21}

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 6, 1965, 546-549

TOPIC TAGS: UV spectroscopy, emission spectrum, flash lamp

ABSTRACT: This is a continuation of earlier work by the authors (PTE No. 2, 138, 1965) on measurements of the spectrum below 100 nm, where the radiation from a pulsed source with repetition frequency 50 cps and duration 2--3 μ sec was described. The original apparatus employed an FEU-29 photomultiplier with a luminescent sodium salicylate screen, and the average current was measured with a microammeter (M-59). In the present investigation the apparatus was improved by using a more sensitive photomultiplier (FEU-39) and replacing the microammeter with an automatic recording peak voltmeter. The recording circuit consists of two blocks, a cathode follower with a set of integrating cells, and the peak voltmeter with its independent power supply. The peak voltmeter circuit is briefly described and a sample of the spectrum in the 90--20 nm region is given. The described circuit has high sensitivity

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ACCESSION NR: AP5017494

and a resolution of 0.01 nm over the entire region of the spectrum. Orig. art.
has: 2 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 03Sep64

NR REF SOV: 002

ENCL: 00

SUB CODE: OP

OTHER: 002

beh
Card 2/2

KRASAVIN, V. V., inzh.

Erosionless opening of the contactors regulating rectifier-
contact converters. Izv. vys. ucheb. zav.: gor. zhur. 5 no.8:
145-149 '62. (MIRA 15:10)

1. Khar'kovskiy gornyy institut. Rekomendovana kafedroy avto-
matizatsii proizvodstvennykh protsessov.

(Electric current rectifiers)

FILIN, N.A.; ZYROV, A.M.; IVANOV, Ye.V.; KHASAVIN, V.I.

Sulfurizing oxidized nickel-cobalt ores by sodium sulfate.
Trudy LPI no.223:174-189 '63. (MIRA 17:11)

INFORM, 1974, Vol. 1.

Automatic control for drilling of wells. (Sov. Acad. Sci. Inform. Ser. Techn. Sci. Ser. 1974, No. 1, p. 1-10, 50 figs.)

KRASAVINA, A.I.

Work of the chemistry study room of the Kostroma Institute for
Teacher Improvement. Khim.v shkole 18 no.2:15-20 Mr-Apr '63.
(MIRA 16:4)

1. Zaveduyushchiy metodicheskim kabinetom khimii Instituta
usovershenstvovaniya uchiteley, Kostroma.
(Chemistry--Teacher training)

KRASAVINA, A.S.

Results of health-resort treatment of adolescents and youths with
gastric and duodenal ulcers. Sbor. nauch. rab. vrach. san.-kur.
uchr. profsciuzov no.1895-97 '64. (MTRA 18:10)

1. Yessentukskiy sanatoriy "Smena" (glavnyy vrach I.G.Ochirenko,
nauchnyy rukovoditel' V.N.Donskoy).

FOGEL'SON, Lazar' Izrailevich, zasl. deyatel' nauki RSFSR. Prini-
mali uchastiye: GONCHAROVA, R.P.; KRASAVINA, G.L.;
LEBEDEVA, O.V., kand. med. nauk; NOTKINA, F.Ya., red.

[Work capacity and indications for job placement in
diseases of the cardiovascular system; scientific methodological
fundamentals] Trudospesobnost' i pokazaniia k trudoustroistvu
pri zabolevanii serdechno-sosudistoi sistemy; nauchno-metodiche-
skie osnovy. Moskva, Meditsina, 1964. 243 p. (MIRA 17:5)

KRASAVINA, L.

"Study of the development of the credit system in People's
Poland" by Wladyslaw Jaworski. Reviewed by L. Krasavina. Den.
1 kred. 16 no.12:82-86 D '58. (MIRA 11:12)
(Poland--Banks and banking)
(Jaworski, Wladyslaw)

KRASAVINA, L.; SHAKHOV, B.

Struggle against revisionism in problems of credit and banking
in Poland and the German Democratic Republic. Den. i kred. 17
no. 6:64-72 Je '59. (MIRA 12:30)
(Poland--Banks and banking) (Germany, East--Banks and banking)

KRASAVINA, L.

"New features of the financial oligarchy in France" by Michel
Inker. Reviewed by L. Krasavina. Den. i kred. 19 no.12:89-91
D '61. (MIRA 14:12)

(France--Big business)
(Inker, Michael)

KRASAVINA, L.

Intensification of state monopoly capitalism in the credit system
of France. Den. i kred. 21 no.7:69-79 J1 '63. (MIRA 16:8)
(France--Banks and banking--Government ownership)
(France--Credit)

KRASAVINA, L.D.

PA - 2193

AUTHOR: LAVRUCHINA, A.K., KRASAVINA, L.D.
TITLE: Fission of nuclei of heavy elements by means of high energy particles. (Russian)

PERIODICAL: Atomnaya Energiya, 1957, Vol 2, Nr 1, pp 27 - 35
Received: 3 / 1957 Reviewed: 4 / 1957

ABSTRACT: The present paper deals with radio-chemical investigations of the fission of uranium- thorium-, and bismuth nuclei by means of 680 MeV protons. By means of the interpolation method a complete picture of the fission fragments was obtained.

The interaction of the high energy particles (~100 - 700 MeV) with compound nuclei takes place in two stages: a) The knocking out of fast particles during the collision of the impinging particles with the nucleus b) The following emission of slow particles from the excited nucleus by evaporation. During these processes the initial nuclei lose a number of nucleons and new nuclei are created, the so-called fission products. They extend over a wide interval of atomic weights, beginning from neighbors of the irradiated elements up to very remote elements. Also during the second stage a fission process may take place. In order to obtain a complete picture of the fission products of U, Th, and Bi by 480 MeV protons, the yields of the stable and non-identified radioactive isotopes were determined from the radio-chemical data obtained by VINOGRADOV et al. (Session

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fission of nuclei of heavy elements by means of high energy particles.
 of the Academy of Science on the peaceful uses of atomic energy, department for chemical science, page 97 (1955)) A diagram illustrates for instance the isotopes created on the occasion of the creation of uranium. The data obtained here result in the following conclusions: On the occasion of the fission of U, Th, and Bi by means of 480 MeV protons, isotopes with surplus neutrons are above all produced. The share of isotopes with a lack of neutrons is insignificant in the case of this proton energy. (The isotopes with a maximum yield are within the range of the isotopes with a neutron surplus and the heavy fission fragments are within the range of nuclear stability). The total fission cross-sections of U and of Th are large, amounting to 55 and 60 % of the geometric cross-section of these nuclei. The fission cross-section of bismuth is 5 % of the geometric cross-section. The probability of the geometric and similar fissions is greatest with bismuth (45 % of the amount of the total fission cross-section). With U and Th this share is somewhat smaller. Finally the distribution of the charge over the fission fragments is discussed. All data and considerations figuring in this tend to show that the fission of U and Th nuclei cannot possibly be explained by pure emission mechanism. This fission is much more likely to be caused

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Fission of nuclei of heavy elements by means of high energy particles.

according to a mixed barrier- and emission mechanism.

ASSOCIATION: Not given

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Cited 3/3

KRASAVINA, L.D.

AUTHOR LAVRUKHINA, A.K., KRASAVINA, L.D., PAVLOTSKAYA, F.I., PA - 2722
 GRECHISHCHEVA, I.M.,
 TITLE The Spallation of Copper by 680-MeV Protons.
 (Rasshchepleniye medi protonami s energiyey 680 MeV - Russian)
 PERIODICAL Atomnaya Energiya, 1957, Vol 2, Nr 4, pp 345-351, (U.S.S.R.)
 Received 5/1957 Reviewed 6/1957
 ABSTRACT The investigations described in this paper were carried out in 1954 and they aimed at obtaining a complete picture of the products obtained at the spallation mentioned in the title. Furthermore, the influence of the energy and of the nature of the bombarding particles upon the character of the spallation process was to be determined. Because it is not possible by means of the radiochemical investigation of the products to identify the stable as well as long-lived and short-lived isotopes, their yields were estimated with the aid of the interpolation method. The investigations were carried out in metallic copper with very small admixtures. For one hour the copper plates were exposed to radiation of the inner bundle (protons of 680 MeV) of the synchrotron of the Institute for Nuclear Problems, Academy of Sciences of the U.S.S.R. Then the plates were dissolved in nitric acid, and from the solution the radioactive isotopes of the different elements were separated on isotope carriers. (The following elements were used. Na, P, S, Cl, K, Ca, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, and Cu).
 Some conclusions. The total spallation cross section of copper amounts to $0.6 \cdot 10^{-24} \text{ cm}^2$, i.e. 65% of the geometrical cross section. The

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The Spallation of Copper by 680-MeV Protons.

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main share in the entire production cross section of the spallation products of copper is yielded by the isotopes of Co, Ni and Cu ($60^0/o$). If the stability is increased, the yield of the isotopes also increases. At the spallation of the copper nuclei, protons and neutrons are emitted in almost equal ratio $\Sigma_n/\Sigma_p = 1.3$. The flying-off of an α -particle is more probable than the successive emission of four nucleons. At spallations of copper by particles of high energy no influence upon the nuclear structure was noticed. If we compare the characteristic particularities of spallation by protons of 680 MeV with the spallation of copper by different particles of energies ranging from 190 MeV to 2.2 BeV, we also obtain some conclusions about the influence of the nature and increase in energy of the bombarding particles upon the character of the spallation of copper.

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10. 10.1956

KRASAVINA, L.D.

AUTHORS Lavrukchina A.K., Moskaleva L.P., Krasavina L.D., 89-10-1/36
Grechishcheva I.M.²⁴
TITLE The Forming of Na²⁴ and P³² when High-Energy Protons Enter into
Interaction with Complex Nuclei.
(Obrázovaniye Na²⁴ i P³² pri vzaimodeystvii protonov vysokoy en-
ergii so slozhnymi yadrami - Russian)
PERIODICAL Atomnaya Energiya, 1957, Vol 3, Nr 10, pp 285-290 (U.S.S.R.)
ABSTRACT The forming cross section for Na²⁴ and P³² was determined by means
of radiochemical methods if Cu, La, Au, Th are bombarded with protons
of from 120 to 660 MeV. The following cross sections were measured:

Energy of protons in MeV	Effective cross section in 10 ⁻²⁹ cm ²							
	Cu		La		Au		Th	
	Na ²⁴	P ³²	Na ²⁴	P ³²	Na ²⁴	P ³²	Na ²⁴	P ³²
120	0,09	0,07	0,099	-	-	-	-	-
220	0,22	0,22	0,3	Spu- ren	0,59	Spu- ren	-	-
340	1,3	1,8	0,5	0,73	0,13	0,3	-	-
480	5,6	24	2	1,4	3,7	1,1	18	3
660	25	31	21	-	8,1	2,2	-	-

SUBMITTED May 31, 1957
AVAILABLE Library of Congress
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AUTHORS: Lavrukhina, A. K., Krasavina, L. D., 20-119-1-14/52
Pozdnyakov, A. A.

TITLE: Radiochemical Investigation of the Products Resulting
From the Fission of Lanthanum by 660 MeV Protons (Radio-
khimicheskoye issledovaniye produktov deleniya lan-
tana protonami s energiyey 660 MeV)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 1,
pp. 56-58 (USSR)

ABSTRACT: The short introduction reports on previous works dealing
with the same subject. This work gives some results of
the radiochemical investigation mentioned in the title.
The main difficulty of this investigation was the pro-
duction of the fission products of lanthanum in pure ra-
dioactive form. The investigation was performed at the
synchrocyclotron of the Laboratory for Nuclear Problems
(Laboratoriya yadernykh problem) of the United Institute
for Nuclear Research (Ob'yedinennyy institut yadernykh
issledovaniy). The target, which was to be bombarded,
consisted of lanthanum oxide powder with a weight of up

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Radiochemical Investigation of the Products
Resulting From the Fission of Lanthanum by
660 MeV. Protons

20-119-1-14/52

to 1g; it was wrapped into an aluminium foil. These targets were irradiated by 660 MeV-protons for from 1-2 hours. Then the powder was dissolved in hydrochloric acid and subsequently the radioactive isotopes were separated. For the separation of the fission products of lanthanum a method for the rapid chromatographic separation of Mn, Fe, Co, Ni, Cu and Zn was worked out before. The essence of this method is shortly described here. The here obtained experimental data and the computed cross sections are compiled in a table and indicate the following: In the fission of lanthanum isotopes with a neutron surplus are essentially generated. The isotopes are in the wide interval of the atomic numbers from $Z = 15$ to $Z = 40$. A diagram illustrates the distribution of the yields of the fission products of lanthanum on the atomic number. This distribution has the character of a flat curve, which speaks for the high probability of the symmetrical and also of the unsymmetrical fission. This conclusion agrees with the theory, after which for nuclei with average atomic weight ($A \approx 160$), for which $(Z^2/A)/$

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$(Z^2/A)_{\text{before}}$ 0.6 holds, the barrier in asymmetrical

Radiochemical Investigation of the Products
Resulting From the Fission of Lanthanum by 660 MeV Protons

20-119-1-14/52

fission is smaller than the barrier in symmetrical fission. The cross sections of the production of the separate fragments vary between 10^{-30} and 10^{-28} cm². From the area, which is enclosed by the curve, the total cross section of the fission of lanthanum by 660 MeV-protons can be estimated to $0.6 \cdot 10^{-27}$ cm². For a more perfect characterization of the fission of lanthanum and for the determination of the corresponding threshold value further investigations are necessary. There are 2 figures, 1 table and 10 references, 5 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo Akademii nauk SSSR (Institute for Geochemistry and Analytic Chemistry imeni V. I. Vernadskiy AS USSR)

PRESENTED: August 27, 1957, by A. P. Vinogradov, Member of the Academy of Sciences, USSR

SUBMITTED: August 22, 1957

Card 3/3

KRASAVINA, L.K.

Some interesting fossil Charophyta from eastern
Kazakhstan. Bot. mat. Otd. spor. rast. 13:107-113
'60. (MIRA 13:7)
(Kazakhstan--Algae, Fossil)

KRASAVINA, I.K.

Study of fossil characeous algae in the U.S.S.R. Bot. zhur. 46
no.9:1309-1315 S '61. (MIRA 14:9)

1. Botanicheskiy institut im. V.L.Komarova AN SSSR, Leningrad.
(Ili Valley--Algae, Fossil) (Zaysan Lake region--Algae, fossil)

KRASAVINA, L.K.

First colloquy on fossil Characeae in the U.S.S.R. Bot. zhur.
48 no.11:1724-1726 N '63. (MIRA 17:4)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

KURSANOV, A., akademik; VYSKREBENTSEVA, E.; SVESHNIKOVA, I.; KRASAVINA, M.

Disorganization of energy metabolism in roots suffering from
potassium deficiency. Dokl. AN SSSR 162 no.18:211-214 My '65.
(MIRA 18:5)

KRASAVINA, M.S.

Autotoxicity of *Bromis inermis* Leyss. Nauch.dokl.vys.shkoly;
biol.nauki no.4:120-123 '65. (MIRA 18:10)

1. Rekomendovana kafedroy botaniki Moskovskogo gosudarstvennogo
pedagogicheskogo instituta im. V.I.Lenina.

ZUBOV, V.Ya.; KRASIL'NIKOV, L.A.; KRASAVINA, T.N.

Axial stresses in steel wire and their relaxation during tempering.
Izv. vys. ucheb. zav.; chern. met. 8 no.2:125-130 '65. (MIRA 18:2)

1. Ural'skiy politekhnicheskiy institut.

TUMANOV, I.I.; KRASAVTSEV, O.A.; TRUNOVA, T.I.

Survival of winter wheat at -195° as a result of vitrification.

Dokl. AN SSSR 161 no.4:978-981 Ap '65.

(MIRA 18:5)

1. C den-korrespondent AN SSSR.

KRASAVINA, T. S.

USSR/Medicine - Cholinesterase Activity

"The Neurohumoral Dynamics of Scarlet Fever," A. L. Fedotov, V. I. Draginskaya, T. S. Krasavina, Dept of Pathology and Infectious Diseases Clinic, Inst Pediatr, Acad Med Sci USSR

Pediatr, No 6, pp 34-38, 1953

At the peak of acute manifestations of scarlet fever, high sympathomimetic activity of the blood, absence or low concn of acetylcholine (I), and increased cholinesterase activity of the serum are observed in most patients. Parasympathetic activity of the blood is exerted during the acute period when the acute processes taper off and there are suppurative complications or aggravations of chronic tonsillitis, otitis, etc. In the post-febrile period, there is a pronounced lowering of the sympathomimetic activity of the blood, an increase in the level of I, and often lowering of cholinesterase activity of the serum and of catalase activity of the erythrocytes. Later in the course of the disease there may be a secondary increase in the sympathomimetic activity of the blood accompanied by a drop in the level of I.

275T27

KRASAVINA, T.S.

Acetylcholine and sympathin in the blood of children with rheumatic fever [with summary in English]. *Pediatrics* 36 no.12:28-31 D '58.

(MIRA 12:1)

1. Iz patofiziologicheskoy laboratorii (zav. - prof. H.M. Nikolayev [deceased]) i revmatologicheskoy kliniki Instituta pediatrii AMN SSSR (zav. klinikoy i dir. instituta - chlen-korrespondent AMN SSSR prof. O.D. Sokolova-Ponomareva).

(RHEUMATISM, in inf. & child

sympathetic & parasympathetic substances in blood (Rus))

BRADAVINA, I. G., Cani Med Sci -- (diss) "Mediators of the nervous system in the blood of children ill with rheumatism." Moscow, 1960. 14 p; (Academy of Medical Sciences USSR); number of copies not given; price not given; (EL. 21-60, 130)

KALYUZHNAIA, R.A., kand.med.nauk; KRASAVINA, T.S., kand.med.nauk

State of the humoral factors of nervous excitation and phagocytic
activity of the leucocytes in chronic tonsillitis in children.
Pediatriia no.8:54-61 '62. (MIRA 15:10)

1. Iz Instituta pediatrii AMN SSSR (dir. - dotsent M.Ya.Studenikii).
(TONSILS--DISEASES)
(PHAGOCYTOSIS)
(NEUROCHEMISTRY)

SEREDA, Ye.V., kand.med.nauk; KRASAVINA, T.S., kand.med.nauk

Some neurohumoral reactivity indices in various forms of tuberculosis in young children. *Pediatrics* 4 no.7:3-7 J1'63

(MIRA 16:12)

1. Iz tuberkuleznogo otdeleniya (zav. - prof. I.V. TSimbler)
i patofizicheskoy laboratorii (zav. - prof. N.V. Puchkov)
Instituta pediatrii (dir. - dotsent M.Ya Studenikin) AMN SSSR.

KRASAVINA, Ye., nauchnyy sotrudnik; OBREVKO, I., nauchnyy sotrudnik;
LAOUNOVA, L., nauchnyy sotrudnik

New type of keramzit concrete. Sel'. stroi. 18 no.5:14-15
My '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut sel'skogo stroitel'stva.
(Keramzit) (Lightweight concrete)

KRASAVINA, Ye.P.

For the improvement of enterprise operations. Gidroliz. i lesokhim.
prom. 14 no.3:18-19 '61. (MIRA 14:4)

1. Stalingradskiy gidroliznyy zavod.
(Stalingrad--Hydrolysis)

KRASAVTSEV, B., kand.tekhn.nauk, dotsent

Prospects for further improvements in the Nautical Astronomy
Yearbook. Mor.flot 17 no.9:17-22 S '57. (MIRA 10:12)

1. Leningradskoye Vyssheye inzhenernoye morskoye uchilishche.
(Nautical almanacs)

KRASAVTSEV, B.I., dotgent

Experimental copy of the marine astronomical yearbook (MAE).
Bibl. Upr. Glavrev. po bezop. moreplav. no.13:3-13 '59.
(MIRA 15:9)
1. Leningradskoye vyssheye inzhenernoye morskoye uchilishche
im. admirala Makarova.
(Nautical astronomy--Yearbooks)

KRASAVTSEV, Boris Ivanovich, dotsent; KHLUSTIN, Boris Pavlovich
[deceased]; CHERNIYEV, L.P., dotsent, retsenzent; RYBALTOVSKIY,
N.Yu., prof., red.; FRISHMAN, Z.S., red.izd-va; KOTLYAKOVA,
O.I., tekhn.red.

[Nautical astronomy] Morekhodnaia astronomia. Leningrad,
Izd-vo "Morskoi transport," 1960. 492 p. (MIRA 14:2)
(Nautical astronomy)

RYBALTOVSKIY, N., prof.; KRASAVTSEV, B., dotsent

Concerning a practically unusable method of determining the
compass error. Mor.flot 21 no.1:21-23 Ja '61. (MIRA 14:6)

1. Leningradskoye vyssheye inzhenernoye morskoye uchilishche
im. admirala Makarova (for Rybaltovskiy).
(Nautical astronomy)

GOLUBEV, Genrikh Aleksandrovich; D'YAKONOV, Vasiliy Fomich; KRASAVTSEV, Boris Ivanovich; MURMANSKIY, Feliks Nikolayevich; NASTAY, Napoleon Napoleonovich; YERMAKOV, I.G., kand. fiz.-matem.nauk, retsenzent; ZHEREBTSOV, M.N., prepodavatel', retsenzent; RYBALTOVSKIY, N.Yu., prof., red.; FRISHMAN, Z.S., red.izd-va; STUL'CHIKOVA, N.P., tekhn. red.

[Problems in nautical astronomy] Zadachnik po morekhodnoi astronomii. Leningrad, Izd-vo "Morskoi transport," 1963. 287 p.
(MIRA 17:3)

1. Arkhangel'skoye morekhodnoye uchilishche (for Zherebtsov).

KRASAVTSEV, B., dotsent; GOLUBEV, G.

Instrumental sextant corrections. Mor. flot 15 no. 8:18-19 Ag
165. (MFA 18:8)

1. Kafedra morskoy astronomii Leningradskogo vysshogo in-
zhenernogo morskogo uchilishcha (for Kravtsev). 2. Zaveduyushchiy
astronomicheskoy observatoriyey Leningradskogo vysshogo inzhenernogo
morskogo uchilishcha (for Golubev).

KONDRASHIKHIN, Vladimir Timofeyevich; RAKHOVETSKIY, Anatoliy
Nikolayevich; KRASAVTSEV, B.N., kand. geogr. nauk, red.;
MESHKOV, O.I., red.

[Astronomical ship position finding and compass correction]
Astronomicheskie opredeleniya mesta sudna i popravki kom-
pasa. Moskva, Transport, 1964. 125 p. (MIRA 17:9)

KR/SAVTSEV, I., inzh.; POPOV, N., inzh.

Heat insulation products made of rock wool in Finland. Stroi. mat.
4 no.3:37 Mr '58. (MIRA 11:3)

(Finland--Insulation (Heat))

KRASAVTSEV I. V.

KRASAVTSEV, I.V., inzh., red.; MATVEYEVA, Ye.N., tekhn.red.

[Model plan for modernizing the 372B surface-grinding machine]

Tipovoi proekt modernizatsii ploskoshlifoval'nogo stanka
modeli 372 B. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1957. 207 p. (MIRA 11:1)

1. Moskovskiy stankostroitel'nyy zavod shlifoval'nykh stankov.
2. Otdel modernizatsii i remonta stankov Eksperimental'nogo
nauchno-issledovatel'skogo instituta metallorezhushchikh stankov
(for Krasavtsev).

(Grinding machines)

KRASAVTSEV, I. V.
KRASAVTSEV, I.V., insh., red.; GOIUBOV, B.N., red.isd-va; SOKOLOVA, T.F.,
tekhn. rec.

[Model plan for modernizing screw-cutting lathes, types 162K (26A) and 162(26A)] Tipovoi proekt modernizatsii tokarno-vintoresnykh stankov modelei 162K(26A) i 162(26A). Moskva, Gos. nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1957. 263 p. (MIRA 10:12)

1. Krasnyy Proletariy, Moscow. 2. Otdel modernizatsii i remonta stankov Eksperimental'nogo nauchno-issledovatel'skogo instituta metalloreshushchikh stankov (for Krasavtsev).
(Screw-cutting machines)

KRASAVTSEV, M., laureat Leninskoy premii, kand.tekhn.nauk

Queen of ferrous metallurgy. Nauka i zhyttia 11 no.12:15-
16 D '61. (MIRA 15:2)

(Blast furnaces)

AREF'YEV, A.S.; KRASAVTSEV, M.A.; STRIGANOV, I.M.

Assembling on the ground and raising trihedral wooden signals.
Geod. i kart. no. 11:16-24 N '60. (MIRA 13:12)
(Triangulation signal towers)

KRASAVTSEV, N. I.

"Interaction of Pig Iron and Slag," Iz. Akad. Nauk, SSSR, Otdel. Tekh. Nauk, No. 5, 1941.
Submitted 19 Oct 1940.

Report U-1530, 25 Oct 1951

KRASAVTSEV, N. I.

Krasavtsev, N. I. The work of stoking of blast furnace Moskva, G. s.
nauch.-tekhn, izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1942.

103 p. V pomoshch'rabochim massovykh professii (49-55870) TN713.K69

KRASAVTSEV, N. I.

Krasavtsev, N. I. Directions for removing flue dust from the blast-furnace plant Moskva, Metallurgizdat, 1942.

46 p. V pomoshch' rabockim massovykh professii (49-30651) TN713.K7

KRASAVTSEV, N. I.

Krasavtsev, N. I. Directions for removing flue dust from the blast-furnace plant
Moskva, Gos. nauch.-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1944.

81 p. V pomoshch'rabochim-metallurgam Iuga (49-56758) TN713.K715

Krasavtsev, N. I.

MIC.

Misc.

.1130A

Ocherki po metallurgii chuguna (Metallurgical sketches of pig iron, by)
N. I. Krasavtsev i I. A. Sirovskiy. Moskva, Metallurgizdat, 1947.
492 p. Illus., Diagr., Tables.

KRASAVTSEV, N. I.

Krasavtsev, N. I. The work of a skilled worker on a modern blast furnace
Moskva, Gos. nauch.-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii,
1949.

544 p. (50-21930) TN713.K68

OSTROUKHOV, M.Ya.; KRASAVTSEV, N.I.

Slag formation occurring as the charge descends. Trudy Leningrad. Politekh.
Inst. im. M.I. Kalinina '49, No.2, 219-56. (MLRA 6:3)
(CA 47 no.21:11098 '53)

BUTALOV, V.A.; ANDREYEV, V.M., professor, retsenzents; NESSEL'SHTRAUS, G.Z.,
prof., kandidat tekhnicheskikh nauk; VIDULYA, P.N., prof., doktor tekhnicheskikh nauk, redaktor; YELIMSON, I.B. [deceased], inzhener, redaktor; KRASAVTSEV, M.I., kandidat tekhnicheskikh nauk, dotsent, redaktor; MILANOV, O.V., inzhener, redaktor; MIRKIN, I.L., prof., doktor tekhnicheskikh nauk, redaktor; RUKAVISHNIKOV, B.S., inzhener, redaktor; SLAVKIN, V.S., inzhener, redaktor; LEBEDEV, A.I., redaktor; MIKHAYLOVA, V.V., tekhnicheskii redaktor.

[Technology of metals] Tekhnologiya metallov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po cherno i tsvetnoi metallurgii, 1952. 471 p.
[Microfilm] (MLRA 7:12)
(Metals)

KRASAVTSEV, I. I.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 487 - I

BOOK

Call No.: AF642249

Author: KRASAVTSEV, N. I.

Full Title: METALLURGY OF CAST IRON

Transliterated Title: Metallurgiya chuguna

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House of
Literature on Ferrous and Nonferrous Metallurgy (Metallurgizdat)

Date: 1952 No. pp.: 639 No. of copies: 10,000

Editorial Staff

Editor: Lyuban, A. P., Prof. Dr. of Tech. Sci.

Appraisers: Gotlib, A. D., Prof., Dr. of Tech. Sci., Pokhvisnev, A. N.,
Prof., Dr. of Tech. Sci.

Others: Semik, I. P., Nekrasov, Z. I. and the Staff of Metallurgizdat

PURPOSE: Approved by the Ministry of Higher Education of the USSR as a
textbook for schools of advanced metallurgical studies. The book is
intended also for engineers and technicians working in blast-furnace
plants.

TEXT DATA

Coverage: This book deals with the theory of blast-furnace smelting,
with the technology of the process and the preparation of raw materials,

1/2

Metallurgiya chuguna

AID 487 - I

and with the designs of blast furnaces and auxiliary equipment. It describes the methods of operation and the technical and economic factors of the performance of blast furnaces. The Introduction gives a brief historical sketch of the cast-iron production in Russia and in other countries. Names of Soviet scientists - metallurgists, who developed the theory of blast-furnace smelting, and of qualified workers in blast-furnace plants who use new efficient methods of operation are mentioned on pages 22-23. Of some interest is perhaps paragraph 2 of Chapter II (pp. 44-55); "Main Deposits of Iron Ores in the USSR". It describes iron ores of the South (Krivoy Rog, Kerch, Azerbaijan regions), of Central Russia (in the regions of Lipetsk, Tula and of the Kursk magnetic anomaly), of the Urals (Magnitogorsk, Bakal, Tagil-Kushvin, Serov and Zigazino-Komarovsk regions) and of West Siberia. Deposits of manganese ores in Caucasus, Nikopol', Ural, Siberia and Central Asia are discussed on pages 61-62. The book is provided with illustrations of the equipment, diagrams and tables.

No. of References: None

Facilities: Works of M. A. Pavlov, Member of the Academy

2/2

KRASAVTSEV, N. I.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 517 - I

BOOK Call No.: TN713.K67

Authors: KRASAVTSEV, N. I., Kand. of Tech. Sci. and others

Full Title: SCAFFOLD FORMATION IN BLAST FURNACES. Symposium

Transliterated Title: Nastyl1 v domennykh pechakh. Sbornik statey

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House of Literature on Ferrous and Nonferrous Metallurgy (METALLURGIZDAT)

Editorial Staff

Editor: Krasavtsev, N. I., Kand. of Tech. Sci.

Tech. Editor: Mikhaylova, V. V.

PURPOSE: To acquaint blast furnace technicians with the accumulated experience and knowledge on scaffold formation in blast furnaces. Also to give practical data to workers of the scientific and research institutes, as well as to students of metallurgy.

TEXT DATA

Coverage: This book has 10 articles, written by metallurgists and scientists named below, describing some 40 cases of scaffold formation in blast furnaces of the USSR various metallurgical plants. The causes of scaffold formation are scrutinized, the matter formed is analyzed, and measures for prevention of scaffold nucleus growth are offered. This symposium is the first attempt to systematize the experience of metallurgists on this subject which effects the efficiency

1/4

Nastyli v domennykh pechakh. Sbornik statey

AID 517 - I

of blast furnaces and to substantiate research data acquired by fellow scientists working on this problem. A list of the contributing authors their articles and the page numbers follow:

Oreshkin, G. G., Eng. (Chief, Blast Furnace Shop Plant im. Dzerzhinskiy), Nastyli v domennykh pechakh zavoda im. Dzerzhinskogo (Scaffold Formation in Blast Furnaces of the Plant im. Dzerzhinskiy), pp. 5-61

Polovchenko, I. G., Eng. (Plant im. Dzerzhinskiy), Izucheniye prichin obrazovaniya nastyley v domennykh pechakh zavoda im. Dzerzhinskogo v 1949-1950 gg. (Investigation of Causes for Scaffold Formation in Blast Furnaces of the Plant im. Dzerzhinskiy in 1949-1950), pp. 62-140

Zherebin, B. N., Eng. (Kuznetsk Metallurgical Kombinat), Nastyli v domennykh pechakh Kuznetskogo zavod i prichiny ikh obrazovaniya (Scaffold Formation and Causes for Accretion in Blast Furnaces of the Kuznetsk Plant), pp. 141-159

Ostroukhov, M. Ya., Kand. of Tech. Sci. (Leningrad Polytechnic Institute), Prichiny obrazovaniya nastyley v domennykh pechakh (Causes for Scaffold Formation in Blast Furnaces), pp. 160-184

Bannykh, A. M., Prof. and Stefanovich, M. A., Dotsent (both of the Magnitogorsk Mining and Metallurgical Institute) and Yakobson, A. P.,

Nastyli v domennykh pechakh. Sbornik statey

AID 517 - I

Eng. (Magnitogorsk Metallurgical Kombinat), Obrazovaniye nastyley v domennykh pechakh (Scaffold Formation in Blast Furnaces), pp. 185-221

Shcherbakov, V. P. and Kaystro, N. P., Eng'rs. (Metallurgical Plant "Zaporozhstal'"), O nastylyakh v domennykh pechakh zavoda "Zaporozhstal'" (Scaffold Formation in Blast Furnaces of the Plant "Zaporozhstal'"), pp. 222-243

Novikov, I. S. and Gladkoskok, P. P., Eng'rs. (Stalino Metallurgical Plant im. Stalin), Prichiny nastyleobrazovaniya v domennykh pechakh (Causes for Scaffold Formation in Blast Furnaces), pp. 241-257

Semavin, P. I. (Beloretsk Metallurgical Plant), Nastyli v domennykh pechakh Beloretskogo metallurgicheskogo zavoda (Scaffold Formation in Blast Furnaces of the Beloretsk Metallurgical Plant), pp. 258-264

(Anonymous - Translation from English), Prichiny obrazovaniya nastyley po dannym zarubezhnoy praktiki (per. s Angliyskogo) (Causes of Scaffold Formation, Material Gathered from Foreign Sources), pp. 265-306

Krasavtsev, N. I., Kand. of Tech. Sci., O prichinakh i merakh preduprezhdeniya obrazovaniya nastyley (obobshchennyye vyvody po materialam sbornika), (Causes for Scaffold Formation and Preventive Measures /Summation and Generalization of Data Presented by the Preceding Authors/), pp. 307-335

3/4

Nastyli v domennykh pechakh. Sbornik statey

AID 517 - I

No. of References: 28 Russian, 6 English, 1 French and 1 German,
1930-1948

Facilities: Leningrad Polytechnic Institute and the Magnitorgorsk
Mining and Metallurgical Institute are mentioned.

4/4

CHERNOV, Nikolay Mikitovich; KRASAVTSEV, N.I., redaktor; YABLONSKAYA, L.V.,
redaktor; EVINSON, I.M., ~~tekhnicheskii~~ redaktor

[Gas flow in blast furnaces] Dvizhenie gazovogo potoka v domennoi
pechi. Moskva, Gos.nauchno-tekhn.isd-vo lit-ry po chernoi i tsvet-
noi metallurgii, 1955. 106 p. (MIRA 9:3)
(Gas flow) (Blast furnaces)

KICHKO, Vasilii Denisovich; POLOVCHENKO, Ivan Gavrilovich; KRASAVTSYV,
N.I., redaktor; SIRENKO, S.M., redaktor; ANDREYEV, S.P., tekhnif-
cheskiy redaktor

[Tapping hole of a blast furnace and its management] Chugunnaia
letka domennoi pechi i ukhod za neiu. Khar'kov, Gos.nauchno-
tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1955. 119 p.
(Blast furnaces) (MIRA 9:3)

LYUBAN, Aron Pavlovich; KRASAVTSEV, N.I., redaktor; NEPOMNYASHCHIY, N.V.,
redaktor; EVENSON, I.H., tekhnicheskii redaktor.

[Analysis of phenomena of the blast furnace process] Analiz iavlenii
domennogo protsessa. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
chernoi i tsvetnoi metallurgii. Pt. 1. 1955. 471 p. [Microfilm]
(Blast furnaces) (MIRA 8:5)

ABRAMOV, V.S., kandidat tekhnicheskikh nauk; LEONIDOV, N.K., inzhener;
ARUTYUNOV, N.B., inzhener; KRASAVTSEV, M.I., kandidat
tekhnicheskikh nauk; GOKHMAN, Ye.V., kandidat' ekonomicheskikh nauk;
YABLONSKAYA, L.V., redaktor izdatel'stva; ATTOPOVICH, M.K.,
tekhnicheskiiy redaktor

[Ferrous metallurgy of capitalist countries] Chernaya metallurgiya
kapitalisticheskikh stran. Moskva, Gos. nauchno-tekhn. izd-vo
lit-ry po chernoi i tsvetnoi metallurgii. Pt. 2. [Preparation of ore
for smelters and blast furnaces] Podgotovka rud k plavke i domennoye
proizvodstvo. 1957. 493 p. (MLRA 10:4)

1. Russia (1923- U.S.S.R.) Ministerstvo chernoy metallurgiy.
Tekhnicheskoye upravleniye. Tsentral'nyy institut informatsii.
(Blast furnaces) (Smelting)

KRASAVTSEV, N I

137-58-5-9041

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 42 (USSR)

AUTHOR: Krasavtsev, N. I.

TITLE: Pig-iron Smelting in Low-shaft Furnaces (Vyplavka chuguna v nizkoshakhtnykh pechakh)

PERIODICAL: V sb.: Issled. domennogo protsessa. Moscow, AN SSSR. 1957, pp 215-233

ABSTRACT: A detailed description of the design and the results of operation of six low-shaft furnaces (LF) employed in metallurgical plants of the FRG (Federal Republic of Germany), eleven furnaces employed in plants of the GDR (German Democratic Republic), and five furnaces employed in other countries. It is noted that all LF's have a common drawback of low output and high fuel consumption (a minimum coke consumption of 1.33 t per ton of pig iron was attained in an LF in Trosberg). In the course of operations difficulties were also encountered with regard to the maintenance of a constant composition of the pig iron. An increase in output and some reduction in fuel consumption may be attained by making the LF's larger. The thermal efficiency of the fuel employed in LF's may be increased by means of introducing

Card 1/2

137-58-5-9041

Pig-iron Smelting in Low-shaft Furnaces

O₂ into the blast and thereby lowering the temperature of the charge gases. Manufacturing costs may be considerably reduced by employing iron ore materials which have been partly reduced earlier.

Ye. V.

1. Iron--Production
2. Blast Furnaces--Operation
3. Fuels--Consumption
4. Iron industry--Germany

Card 2/2

KRASAVTSEV, N. I.

AUTHOR: Krasavtsev, N. I. (Candidate of Technical Sciences).
TITLE: Blast-furnace fuel. (Toplivo domennykh pechey).^{130-5-21/22}
PERIODICAL: "Metallurg" (Metallurgist) 1957, No.5, pp.41-43 (USSR).
ABSTRACT: This is a historical review of the use of wood-charcoal, coal, anthracite and coke as blast-furnace fuel in the main iron-producing areas of the world. The author does not think highly of the possibility of using iron-coke (a fuel made by adding iron ore to the coking mixture), but thinks the "formed" fuel made by the method developed by L. M. Sapozhnikov more promising. This method enables strong fuel to be obtained from non-coking coals.
There is 1 table.

AVAILABLE:

Card 1/1

AUTHOR: Nekrasov, Z.I., Correspondent member of the Ac.Sc.
Ukraine SSR, Krasavtsev, N.I. and Chekhranov, V.D.,
Candidates of Technical Sciences. 133-5-23/27

TITLE: Investigations of the Iron and Steel Institute of the
Ac.Sc. of the Ukrainian SSR (Issledovaniya Instituta
Chernoy Metallurgii AN USSR)

PERIODICAL: "Stal'" (Steel), 1957, No.5, pp. 468-469 (U.S.S.R.)

ABSTRACT: The following problems were investigated:

1) Operation of blast furnaces on elevated and high top pressures. Investigations were carried out on the Dzerzhynskiy Works on furnaces of 1 386 m³ working volume. Top pressure was increased in stages from 0.5 - 0.6 atm. to 0.8, 0.9, and 1.0 atm. The output of furnaces was somewhat increased. The largest pressure drop per metre of height was observed in the stack and not at lower furnace levels. Observation on the gas distribution in the furnace throat did not confirm that with increasing top pressure the peripheral gas flow is increased. In 1956, one of the furnaces was operated at top pressures of up to 1.3 atm. The furnace operation under these conditions was not stable as 8 times a day the pressure was lowered for casting periods. It is concluded that the difficulties encountered during casting with top pressure of 1.3 atm. are not insurmountable.

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Investigations of the Iron and Steel Institute of the Ac.Sc.
of the Ukrainian SSR. (Cont.) 133-5-23/27

2) The production of self-fluxing sinter from the Kerchensk concentrates. The production of sinter with CaO/SiO_2 ratio of up to 1.4 was investigated. It was established that the increasing basicity of the sinter from 0.23 to 1.4 is not accompanied by an improvement in the reducibility of sinter.

3) Experimental steel making from pig produced from Kerchensk ores in a converter with an application of oxygen. This is a long term research project aiming at establishing a rational method of steel making from high phosphorous pig. In a series of laboratory experiments under various conditions of oxygen supply the possibility of extensive dephosphorisation at a high carbon content in the metal and the usual content of iron oxides in slag was established.

4) An investigation of merchant and wire drawing mills. The investigation was carried out in order to establish possible methods of increasing the output of mills. It was shown that rolling with clamping allows increasing the angle of grip in reducing stands by 3-5° and more and thus increases the degree of reduction by 15-20%. The latter will permit decreasing the number of passes. A new design of finishing and pre-finishing

Card 2/4 stands for wire drawing mills of the Petrovsk and Dzerzhynskiy

Investigations of the Iron and Steel Institute of the Ac.Sc.
Ukraine SSR. (Cont.) 133-5-23/27

Works was developed. Some problems in mechanisation and automation of merchant and wire mills were also investigated.

5) The development and an investigation of the technology of rolling economic profiles. The possibility of rolling discs for motor car wheels was established.

6) An increase in the output of a blooming mill by an improved utilisation of the mill driving motors. As a result of investigations carried out during the last few years some recommendations were given to the Dzerzhinsk and Petrovsk works regarding changes in blooming mill practice which resulted in a 10-15% increase in the output.

7) Thermal treatment of wheels for railway cars. The technology of thermal treatment from induction heating was developed. Gipromez designed equipment for treating 40 000 wheels per year for the K. Liebknecht Works.

8) The mechanism of the influence of gaseous and liquid media on the graphitisation of cast iron. The problem was investigated and it was established that the mechanism of acceleration of graphitisation during surface oxidation is related to the formation of vacancies in the surface zone.

9) An investigation of the influence of silicon on austenite

Card 3/4

Investigations of the Iron and Steel Institute of the AcSc.
of the Ukrainian SSR. (Cont.) 133-5-23/27

and entectoidal transformation of cast iron. Theoretical investigations of the system Fe-C-Si indicated that during the crystallisation of cast iron and during entectoidal transformation inter-crystalline segregation of silicon is possible. The results obtained may be utilised when developing the technology of thermal treatment of grey and magnesium inoculated cast irons.

10) The use of low carbon cast iron for casting balls for ball mills. As a result of this work, balls are being made by casting in chill moulds. Their hardness 450-500 H_B at a carbon content of 2.5 - 2.8%. The metal for casting was produced in an oxygen blown converter.

11) The use of oxygen for melting cast iron reverberatory furnaces. Melting of high silicon cast iron scrap was considerably speeded up by the use of oxygen. The use of oxygen for melting cast iron for rolls increased the output of the furnace by about 20% and decreased the consumption of fuel by 20-25% and the cost of production by about 15 Roubles/Ton. The above practice is being introduced on the Dnepropetrovsk works producing cast iron rolls.

AVAILABLE:
Card 4/4

GOLOVCHENKO, Ivan Gavrilovich, KRASAVTSEV, N.I., otv-red.; LIBERMAN, S.S., red.;
ANDRUYEV, S.P., tekhn.red.

[Movement of burden materials and gases in the blast furnace]. Dvizhenie
shikhtovykh materialov i gazov v domennoi pechi. Khar'kov, Gos.
nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1958
162 p. (MIRA 11:9)

(Blast furnaces)

18(3); 18(5)

PHASE I BOOK EXPLOITATION

SOV/1442

Krasavtsev, Nikolay Ivanovich

Perspektivy razvitiya domennogo proizvodstva (Prospects for the Development of the Blast Furnace Industry) Moscow, Metallurgizdat, 1958. 558 p. 3,000 copies printed.

Ed.: A.P. Lyuban; Ed. of Publishing House: L.V. Yablonskaya; Tech.
Ed.: O.G. Bekker.

PURPOSE: This book is intended for engineering and technical workers of blast-furnace plants, scientific research and educational institutes and students of metallurgical vuzes.

COVERAGE: The book reviews the development of the blast furnace industry during the 19th and 20th centuries, and indicates the main trends of the future. It also deals with method of increasing production, decreasing coke consumption (by increasing furnace volume), selection of optimum shape [cross section], preparation of material for smelting, blast wetting, increasing pressure, outside desulfuration, using oxygen blast, and improving operational control of the furnace. Other than blast furnace processes of making pig iron and
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Prospects for the Development (Cont.)

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semiproduct metal (electrosmelting low-shaft furnace, and direct production of iron sponge from ore), are described. The authors give their opinion concerning modifications of blast furnaces in the future. There are 507 references, of which 151 are Soviet.

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Prospects for the Development (Cont.)

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SOV/130-58-8-16/18

AUTHOR: Krasavtsev, N.I., Candidate of Technical Sciences

TITLE: ~~The Origin and Early Stages in the Development of the~~
Blast Furnace Process (Vozniknoveniye i pervyye etapy
razvitiya domennogo proizvodstva)

PERIODICAL: Metallurg, 1958, Nr 8, pp 35 - 37 (USSR)

ABSTRACT: This is a historical review of pig-iron production
with special attention to the blast-furnace process, from
ancient China up to about the end of the 19th century.
There are 5 figures.

1. Iron--Processing 2. Blast furnaces--History

Card 1/1

PHASE I BOOK EXPLOITATION

SOV/3619

Krasavtsev, Nikolay Ivanovich

~~Razvitiye~~ tekhniki domennogo proizvodstva SSSR v blizhayshem semiletii.
(Development of Blast Furnace Technology of the USSR in the Next Seven
Years) Moscow, Metallurgizdat, 1960. 69 p. Errata slip inserted.
2,200 copies printed.

Ed.: Ye. F. Verman; Ed. of Publishing House: S. L. Zinger; Tech. Ed.;
L. V. Dobuzhinskaya.

PURPOSE: The booklet is intended for metallurgists and production engineers
specializing in iron smelting. It is also addressed to the general reader
interested in the future progress of ferrons metallurgy.

COVERAGE: The booklet discusses a number of technological measures aimed at
increasing the production of iron in blast furnaces. These measures include:
improved dressing methods, preparation of homogenized charge, production of
sinter of higher basicity, intensification of blowing technology, increase

Card 1/4

Development of Blast Furnace (Cont.)

80V/3619

in gas pressure at the furnace throat, operation at higher blast temperature, construction of high-tonnage furnaces, and design modernization. The methods the author recommends for adoption to attain higher production are all non-Soviet. There are 16 figures and 8 tables. No personalities are mentioned. There are no references.

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Development of Blast Furnace (Cont.)

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Development of Blast Furnace (Cont.)

SOV/3619

Construction of high-temperature air heaters

65

Mechanization and automation of blast-furnace operations

67

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Card 4/4

KRASAVTSEV, Nikolay Ivanovich; NEKRASOV, Z.I., otv.red.; REMENNIK, T.K.,
red.izd-va; BUNII, R.A., tekhn.red.

[Increasing the efficiency of blast-furnace smelting] O povyshenii
effektivnosti domannoi plavki. Kiev, Izd-vo Akad.nauk USSR, 1960.
97 p. (MIRA 13:9)

1. Chlen-korrespondent AN USSR (for Nekrasov).
(Blast furnaces)

GOTLIB, A.D., prof., doktor tekhn. nauk, otv. red.; KRASAVTSEV, N.I.,
dotsent, kand. tekhn. nauk, otv. red.; LEVCHENKO, V.I., inzh.,
spets. red.; MIKHAYLOVSKIY, Vs., tekhn. red.

[Scientific investigations as an aid to blast-furnace practices]
Nauchnye issledovaniia v pomoshch' domennomu proizvodstvu.
Dnepropetrovsk, Dnepropetrovskoe knizhnoe izd-vo, 1960. 285 p.
(MIRA 15:2)

(Blast furnaces)

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77-22
307/136-05-1-5/22

AUTHOR: Krasavtsev, N. I. (Reviewer)

TITLE: Increasing the Intensity of the Blast Furnace Process.
Results of the Working Experience of Chinese Blast Furnace Operators

PERIODICAL: Metallurg, 1960, Nr 1, pp 10-12 (USSR)

ABSTRACT: Ma K'uang k'ua, a Chinese engineer, investigated the possibilities of increasing the intensity of the blast furnace process and simultaneously decreasing specific coke consumption. The work of a 151 m³ furnace (Nr 1) and a 301 m³ furnace (Nr 2) was studied at the Taiyuan plant (Taiyuan'skiy zavod). Results of observations are summed up as follows: (1) Each furnace has an optimal rate of melting which depends on (a) charging conditions; (b) technical control; and (c) state of equipment. It was noted that in furnace Nr 1, coke consumption was cut to 593 kg/ton of cast iron at a melting intensity of 1.438 ton/m² per day (versus an original 1.157 ton/m² per day and 414 kg/ton), and in furnace Nr 2 to 400 kg/ton of

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Increasing the Intensity of the Blast Furnace Process. Results of the Working Experience of Chinese Blast Furnace Operators

307/136-05-1-5/22

cast iron at an intensity of 1.372 ton/m² (versus an original 1.053 ton/m² per day and 779 kg/ton). Any deviation from this norm resulted in impeded gas distribution, lower rate of utilization of chemical gas energy, and increased coke consumption. (2) Gas permeability of the charge is closely linked to the intensity of the melting process. Better permeability promotes optimal melting intensity which, in turn, cuts coke consumption. Factors which were found to affect permeability: (a) composition of charge; (b) uniformity of lump sizes; and (c) abrasion-resistance of coke. Changes in charging methods improved permeability and promoted peripheral and axial gas flow. (4) The work of the furnace is greatly influenced by the gas flow in the axial zone of the charge column. By unloading the axial zone the gas flow in it is increased and the ore near the axis more effectively treated. (5) Increased rates and amounts of blasting expand the oxidizing zone and increase the amount of gas which passes near the axis. (6) Decreases in slag quantities promote gas

Card 2/3

Increasing the Intensity of the Blast Furnace Process: Results of the Working Experience of Chinese Blast Furnace Operators

permeability and increase the speed of gas near the axial zone. (7) Under present working conditions the intensity of the melting process can be raised for small and medium-sized furnaces to 1.2 ton/m² per day and to over 1.5 ton/m² for large furnaces. The reviewer notes that, although the above facts are known in the Soviet Union, the importance of the article should not be underestimated; 1.0 to 1.1 ton/m² per day are accepted as maximum melting rate in some SS. of which a view refuted by Chinese practices. There are further

Card 4/3

KRASAVTSEV, N.I., laureat Leninskoy premii

Practices in the operation of American blast furnaces.
Metallurg 5 no. 12:41-43 D '60. (MIRA 13:11)

1. Stalinskiy filial Ukrainskogo instituta metallov.
(United States--Blast furnaces)

KRASAVTSEV, "I.I.

Some theoretical problems connected with the blowing into blast
furnaces of reducing gases. Izv. vys. uchet. zav.; Chern. met. 4
no.12:31-39 '61. (MIRA 15:1)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Blast furnaces) (Gas, Natural)

LYUBAN, Aron Pavlovich [deceased]; GOTLIB, A.D., retsenezent;
MANCHINSKIY, V.G., red.; KRASAVTSEV, N.I., red.; PTITSYNA,
V.I., red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Analysis of phenomena in the blast furnace process] Analiz
izvlenii domennogo protsesssa. Pod red. V.G.Manchinskogo. Izd.2.,
dop. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po cherno i
tsvetnoi metallurgii, 1962. 532 p. (MIRA 15:3)
(Blast furnaces)

BELEVTSOV, G.A.; KRASAVTSEV, N.I.; MISCHENKO, N.M.; SOLDATKIN, A.I.;
SHARKEVICH, L.D.; Prinimali uchastiye: FROLOV, S.Ya.;
SHESTOPALOV, I.I.; PECHNIKOVA, Z.A.; STOLBUNSKIY, L.Z.;
USOV, V.T.; GLOTOV, P.L.; VOLKOVA, A.Ya.; ALDOKHINA, V.P.;
VOLOSHIN, Yu.T.; SHUMAKOV, I.S.; ZAPOROZHETS, N.P.;
SHAPOSHNIKOV, V.P.; GONCHAROVA, M.Ya.

Investigation of blast furnace smelting using natural gas.
Stal' 22 no.6:483-486 Je '62. (MIRA 16:7)

(Blast furnaces—Equipment and supplies)

ARUTYUNOV, N.B., inzh., red.; VOSKOBOYNIKOV, V.G., doktor tekhn. nauk, red.; GOTLIB, A.D., prof., doktor tekhn.nauk, red.; GUSOVSKIY, A.A., inzh., red.; KRASAVTSEV, N.I., kand. tekhn. nauk, red.; NEKRASOV, Z.I., akademik, red.; OSTROUKHOV, M.Ya., kand. tekhn. nauk, red.; POKHVISNEV, A.N., prof., doktor tekhn.nauk, red.; RAMM, A.N., prof., doktor tekhn. nauk, red.; TSYLEV, L.M., prof., doktor tekhn. nauk, red.; POZDNYAKOV, G.L., red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Blast furnace process according to most recent developments; on the 100th. anniversary of Academician M.A.Pavlov's birth] Domennyi protsess po noveishim issledovaniyam; k 100-letiu so dnia rozhdeniia akad. M.A.Pavlova. Moskva, Metallurgizdat, 1963. 325 p. (MIRA 16:8)

1. AN Ukr.SSR (for Nekrasov).
(Blast furnaces)
(Pavlov, Mikhail Aleksandrovich, 1863-1958)

KRASAVTSEV, N.I., kand.tekhn.nauk, red.; GIMMEL'FARB, A.A., kand.
tekhn. nauk, red.; GONCHAROVA, L.A., red. izd-va;
ISLENT'YEVA, P.G., tekhn. red.

[Acceleration of blast furnace smelting] Forsirovanie
domennoi plavki; trudy. Moskva, Metallurgizdat, 1963.
386 p. (MIRA 16:8)

1. Nauchnaya konferentsiya po teoreticheskim voprosam me-
tallurgii chuguna. Dnepropetrovsk, 1961.
(Blast furnaces)